No. 24-1508

United States Court of Appeals
For the Federal Circuit

APPLE INC.,
Appellant,

v.

LBT IP I LLC,
Appellee.

Appeal from the United States Patent and Trademark Office,
Patent Trial and Appeal Board, in No. IPR2020-01189

RESPONSE BRIEF FOR APPELLEE LBT IP I LLC

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August 12, 2024

REPRESENTATIVE PATENT CLAIM AT ISSUE

U.S. Patent No. 8,497,774

1. A local charging management device to manage electrical resource capability for an electronic track device that is tracked by at least one other tracking device comprising:

a battery power level monitor;

a charging unit; and

an electrical power resource management component to adjust cycle timing of at least one of a request rate of location coordinate packets to a target host and a listen rate of the location coordinate packets responsive to an estimated charge level of the charging unit;

wherein the battery power level monitor measures a power level of the charging unit and adjusts a power level applied to location tracking circuity responsive to one or more signal levels, the power level comprising a multitude of threshold values determined by a user or system administrator to intermittently activate or deactivate the location tracking circuitry to conserve power of the charging unit in response to the estimated charge level of the charging unit.

CERTIFICATE OF INTEREST

Counsel for Appellee LBT IP I LLC certifies the following:

1. The full name of every party represented by me is:

   LBT IP I LLC.

2. The parties named in the caption are the real parties in interest.

3. All parent corporations and publicly held companies that own 10 percent or more of the stock of the party represented by me are:

   LBT IP LLC.

4. The names of all law firms and the partners or associates that appeared for the party now represented by me in the trial court or agency or are expected to appear in this court are:

   Taft Stettinius & Hollister, LLP – Brian S. Seal, Shaun D. Gregory

   Butzel Long, PC – Mitchell S. Zajac

5. The following cases are related to and/or may be affected by the outcome of this appeal:

   LBT IP I LLC v. Apple Inc., No. 1:2019-cv-01245 (D. Del.)

   LBT IP I LLC v. Apple Inc., Nos. 22-1613, 22-1614, 22-1615, 22-1616, 22-1617 (Fed. Cir.)

6. The following parties were involved in the above-listed cases:

   LBT IP I LLC

   Apple Inc.

7. The following law firms, partners, and associates were involved in the above-listed related cases:

Taft Stettinius & Hollister LLP: Brian S. Seal, Shaun D. Gregory

Erise IP, P.A.: Clifford T. Brazen, Abran J. Kean

Potter Anderson & Corroon, LLP: David E. Moore, Bindu A. Palapura, Tracey E. Timlin, Stephanie E. O'Byrne

Weil, Gotshal & Manges LLP: Brian E. Ferguson, Robert T. Vlasis III, Daniel Musher, Ariane Moss, Audra Sawyer, Anne M. Cappella, Sudip Kundu

Young Conaway Stargett & Tylor, LLP: Karen L. Pascale, Robert M. Vrana

8. There are no organizational victims or bankruptcy case debtors or trustees in this appeal.

Date: August 12, 2024

/s/ Shaun D. Gregory
Shaun D. Gregory

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TABLE OF AUTHORITIES

STATEMENT OF RELATED CASES

Pursuant to Rule 47.5 of the Federal Circuit Rules, counsel for LBT IP I LLC states as follows:

The following consolidated appeals from the Patent Trial and Appeal Board were previously before this Court: *LBT IP I LLC v. Apple Inc.*, Nos. 22-1613, 22-1614, 22-1615, 22-1616, 22-1617 (Fed. Cir.). This Court decided those consolidated appeals on June 9, 2023, and the decision was not reported in the Federal Reporter. *See* Appx660-676; *LBT IP I LLC v. Apple Inc.*, No. 22-1613, Dkt. 39, 2023 WL 3914920 (Fed. Cir. June 9, 2023). The panel consisted of Chief Judge Moore, Judge Lourie, and Judge Stoll.

The following case will directly affect or be directly affected by this Court's decision in the pending case: *LBT IP I LLC v. Apple Inc.*, No. 1:2019-cv-01245 (D. Del.), which case is currently stayed pending the outcome of the instant appeal.

INTRODUCTION

The Court should affirm the claim construction of the Patent Trial and Appeal Board ("PTAB") because it is clearly correct and Apple's alternative reading yields nonsense. The relevant claim language reads:

> … the battery power level monitor measures **a power level** of the charging unit …, **the power level** comprising a multitude of threshold values."[1]

Apple never grapples with the obvious flaw in its claim construction. Under Apple's reading the "*battery* power level monitor" is monitoring GPS signals and the "power level" of "the *charging* unit" consists of GPS signals. That makes no sense. Moreover, the claim recites "location tracking circuitry"—not battery circuitry—to monitor GPS signals. Apple's argument that GPS signal strength and battery power can have "threshold values" or "power levels" is irrelevant, because "battery power level monitors" do not monitor GPS signals and "charging units" are not charged by GPS signals.

Apple's suggestion that the PTAB ignored the Court's direction in the prior appeal is wrong. Appx672. This Court directed the Board to determine "whether the two sets of threshold values disclosed in Sakamoto teach a multitude of threshold values." *Id*. The Board's answer—and the correct answer—is "no."

[1] All emphases added unless noted.

Apple cherry-picks individual words and combinations from the claims and attempts, with only attorney argument devoid of any reference to the record below, to create false equivalencies between distinct uses of common terms as well as different words. Apple further attempts, again with only attorney argument devoid of any reference to the record below, to conflate two distinct and disparate embodiments into somehow achieving a common purpose in the same way, despite explicit disclosure to the contrary.

In contrast to Apple's tortured and convoluted interpretation of individual words and combinations, the claim recites "the battery power level monitor measures a power level of the charging unit and adjusts a power level applied to location tracking circuity …, the power level comprising a multitude of threshold values." Appx55(16:53-57). Such plain language, alone and in view of the specification, provides substantial evidence to support the Board's determination "that the 'power level' in 'the power level comprising a multitude of threshold values' refers to battery power threshold values." Appx21.

Rather than separately reciting a "battery power level" and a "power level," the claim actually recites "a battery power level monitor" that "measures a power level" and "adjusts a power level." And while the specification discloses a "power level of [a] receive[d] communication signal," such GPS signal strength disclosure is distinct from any disclosure of a "battery power level monitor" or "battery power

level." Neither the claims nor the specification suggest that "power level," as recited in the claims, is somehow a generic term. Instead, "the power level comprising a multitude of threshold values" is necessarily a specific instance of "power level" as measured and/or adjusted by "the battery power level monitor."

The Board correctly ascribed different meanings to the recited "signal levels" and "power level." The claims separately recite "estimated charge level." However, the specification also discloses "a power level" and "estimated charge level" as two separate ways to identify a battery level, *i.e.*, battery power level and battery charge level. As such, whether or not the Board's construction excludes "estimated charge level" does not create some "self-contradictory result."

Apple complains that the Board's construction somehow improperly omits a disclosed embodiment from the claim. What Apple really wants to do is impermissibly rewrite the claim such that the currently clear recitation of a distinctly disclosed embodiment is replaced with a tortured conflation that lacks any support in the specification.

STATEMENT OF THE ISSUES

1. The Board correctly determined the proper scope of "the power level comprising a multitude of threshold values" as limited to values corresponding to battery power levels.

2. The Board's claim scope properly identifies the embodiment corresponding to "the power level comprising a multitude of threshold values."

3. The prosecution history supports the Board's construction.

STATEMENT OF THE CASE

U.S. Patent No. 8,497,774 (the "'774 Patent") was the subject of an *inter partes* review in which all challenged claims were found obvious over Japanese Unexamined Patent Application Publication No. 2004-37116A ("Sakamoto"). Appx584-653. On appeal, this Court vacated and remanded the Board's decision based on a holding that the term "multitude of threshold values" in claims 8, 10, 13, and 15 requires more than two threshold values. Appx660-676; *LBT IP I LLC v. Apple Inc.*, No. 22-1613, Dkt. 39, 2023 WL 3914920 (Fed. Cir. June 9, 2023).

This Court determined that remand was necessary because the Board "did not address Apple's alternative argument that Sakamoto discloses at least four threshold values." Appx672. This Court further stated "[w]e leave it for the Board on remand to determine whether multitude encompasses three or four threshold values and whether the two sets of threshold values disclosed in Sakamoto teach a multitude of threshold values." *Id*.

The Board, on remand, determined "[a]lthough the court left open the question of whether a 'multitude' encompasses three or four threshold values, we do not need to answer this question to dispose of the remaining claims and

grounds." Appx12 (citing *e.g., Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019)). Rather, the Board correctly determined "that the 'power level' in 'the power level comprising a multitude of threshold values' refers to battery power threshold values." Appx21. In turn, the Board properly determined that "Petitioner has only established that Sakamoto teaches two battery power level thresholds within the scope of 'the power level comprising a multitude of threshold values'" and "Petitioner has not established that Sakamoto teaches 'the power level comprising a multitude of threshold values,' as recited in claim 8." Appx32.

Despite the Board's well-reasoned and complete analysis, Apple appeals the Board's decision with new arguments not previously presented to the Board.

I. The '774 Patent

A. Background of the Invention

The '774 Patent relates to improvements in battery conservation of portable electronic devices with global positioning system ("GPS") tracking capabilities. Appx48-49 (2:46-3:51). In particular, the specification discloses two disparate, yet complementary, battery conservation improvements: 1) a GPS signal strength trigger method; and 2) a multitude of battery power level adjustments.

With the GPS signal strength trigger method, "the electronic tracking device conserves battery power when the device is partially or fully blocked access to location coordinates from one or more GPS satellites, *e.g.*, a primary location

tracking system." Appx50 (6:15-18). More specifically, the '774 Patent discloses the method as: a) "processing unit 104 determines a power level of receive communication signal;" b) "accelerometer 130 activates if a power level of the receive communication signal is insufficient for processing;" and c) "upon determining receive communication signal of sufficient signal strength, location tracking circuitry 114 are activated." Appx52 (10:46-60); Appx43 (Figure 3). As disclosed, a GPS signal strength or "power level of receive communication signal" is used to trigger whether an accelerometer and/or location tracking circuitry should be turned on or off.

While the GPS signal strength trigger method corresponding to FIG. 3 refers to "power level of receive communication signal," this method does not refer to a threshold value. That is, the embodiment of FIG. 3 which Apple complains is omitted under the Board's construction does not disclose "power level of receive communication signal" as a threshold value. Only elsewhere, in relation to a different first signal level embodiment, does the '774 Patent disclose "the accelerometer 130 activates upon one or more designated antenna(s) … detecting a first signal level, e.g., a low signal level or threshold value." Appx51 (7:55-57). As such, the '774 Patent discloses a GPS signal level as one type of threshold value, but does not disclose such signal level to be a power level.

With the second improvement, the multitude of battery power level adjustments improvement, "user input request 430 adjusts value 419 to select an appropriate update set of network communication signaling protocols to achieve a desired user defined battery operating environment, *e.g.*, obtain optimal battery life, obtain optimal update rate, tradeoffs between them." Appx53(11:59-63). The '774 Patent discloses an advantage of this improvement as:

> In contrast to previous manufacturer tracking device power level settings, the present invention has the capability of **power level (e.g., battery power level 406) <u>adjustments</u> include multitude of threshold values (see active display 432 of FIG. 4)** that is determined by user or system administrator to intermittently activate or deactivate location tracking circuitry (e.g., location tracking circuitry 114) to conserve power of the power charging unit (e.g., battery 118) responsive to estimated charge level (e.g., battery charge level 406).

Appx54 (13:58-67).

This improvement explicitly defines "power level adjustments" as a different type of threshold value. Further, this improvement explicitly indicates that this different type of threshold value (*i.e.*, power level adjustments) "include[s] [a] multitude of threshold values." In contrast to the GPS signal strength trigger method, the Multitude of battery power level adjustments improvement allows a "user defined battery operating environment" by selecting any one of a multitude of power level adjustments which correspond to how frequently a location is determined (by activating and deactivating location tracking circuitry) and transmitted. *See* Appx54 (14:1-57).

B. The Appealed Claims of The '774 Patent

While the specification may disclose two different types of threshold values (*e.g.*, "signal level" and "power level adjustments"), the plain language of claim 8 is clearly limited to only one type of threshold values (*i.e.*, "power level adjustments").

Independent claim 8 recites:

> A local charging management device to manage electrical resource capability for an electronic tracking device that is tracked by at least one other tracking device comprising:
>
> a battery power level monitor;
>
> a charging unit; and
>
> an electrical power resource management component to adjust cycle timing of at least one of a request rate of location coordinate packets to a target host and a listen rate of the location coordinate packets responsive to an estimated charge level of the charging unit,
>
> wherein the **battery power level monitor** measures **a power level** of the charging unit and adjusts **a power level** applied to location tracking circuitry responsive to **one or more signal levels**, **the power level comprising a multitude of threshold values** determined by a user or system administrator to intermittently activate or deactivate the location tracking circuitry to conserve power of the charging unit in response to the estimated charge level of the charging unit.

Appx55 (16:53-61).

The claim term "the power level comprising a multitude of threshold values" necessarily refers back to "a power level of the charging unit" and/or "a power level applied to location tracking circuitry." *See Wi-Lan, Inc. v. Apple, Inc.*, 811

F.3d 455, 462 (Fed. Cir. 2016) ("Subsequent use of the definite articles 'the' or 'said' in a claim refers back to the same term recited earlier in the claim"). More specifically, "the power level" in this claim term necessarily refers back to "a power level applied to location tracking circuitry." *See* Appx54 (13:60-62) ("power level (e.g., battery power level 406) adjustments include multitude of threshold values"). And the claim recites that "the battery power level monitor … adjusts a power level applied to location tracking circuitry." The "power level" in this claim term is necessarily limited to "a power level applied to location tracking circuitry" as adjusted by "the battery power level monitor." In turn, "a multitude of threshold values" in this claim term is necessarily limited to the type of information that corresponds to "power level adjustments." As such, the specification discloses two different types of threshold values (*e.g.*, "signal level" and "power level adjustments") while the plain language of claim 8 is clearly limited to only one type of threshold values (*i.e.*, "power level adjustments").

C. The Two Embodiments in The Specification Describing "Threshold Values"

As discussed above, the '774 Patent discloses two improvements: 1) the GPS signal strength trigger method; and 2) the multitude of battery power level adjustments. The GPS signal strength trigger method corresponds to FIG. 3 and related disclosure, but does not make reference to a threshold value. The multitude of battery power level adjustments corresponds to FIG. 4 and explicitly discloses a

multitude of threshold values. The only other reference to a threshold value is a third embodiment that discloses a low signal level or threshold value as examples of a first signal level.

The ’774 Patent explicitly omits FIG. 3 when disclosing “[r]eferring now to FIGS. 1-2 and 4-6 exemplary embodiments of the electronic tracking device of the invention are described in detail.” Appx50 (6:30-32). In turn, the ’774 Patent refers to FIG. 1 when disclosing “the accelerometer 130 activates upon one or more designated antenna(s), e.g., antennas 122*a*, 122*b*, detecting a first signal level, e.g., a low signal level or threshold value.” Appx51 (7:55-58). This disclosure of a low signal level or threshold value as examples of a first signal level merely suggests that one type of threshold value may correspond to a signal level. However, such threshold value may simply be the absence or presence of any signal. To be clear, the only explicit disclosure is that “threshold value” and “a low signal level” are examples of “a first signal level.”

In contrast, the multitude of battery power level adjustments improvement explicitly discloses “power level (e.g., battery power level 406) adjustments include multitude of threshold values (see active display 432 of FIG. 4).” Appx54 (13:60-62). In contrast to providing a threshold value as one example of a first signal level, this embodiment explicitly defines “multitude of threshold values” as corresponding to “power level adjustments.”

While Apple attempts to present the GPS signal strength trigger method embodiment of FIG. 3 as disclosing a GPS power level threshold value (or any threshold value), their efforts are nothing more than attorney argument devoid of any expert support or any reference to the record below. FIG. 3 and the corresponding disclosure refer to "a power level of the receive communication signal" and "first signal level." *See* Appx43 (Figure 3); Appx52 (10:38-67). However, the GPS signal strength trigger method does not disclose that "first signal level" is a threshold value. *See id*. In light of the disclosure discussed above that "a low signal level or threshold value" are merely examples of "a first signal level," "a power level of the receive communication signal" is as likely to be "a low signal level" as any "threshold value."

II. Procedural History

A. *Inter Partes* Review Proceedings IPR2020-01189 - The '774 Patent

The Board initially instituted review of claims 1, 4-6, 8, 10, 13, and 15 of the '774 Patent on March 4, 2021 (Appx179-208) and, in a Final Written Decision issued on March 2, 2022, determined Apple had met its burden based, in part, on construing "multitude" to include two threshold values. Appx584-653.

B. LBT Appeals The Construction of "Multitude"

LBT appealed the Board's construction of "multitude" (Appx668) and this Court held "that multitude does not include two but must include as few as five

threshold values." Appx672. This Court also noted "[b]ecause the Board incorrectly concluded a multitude includes two, it did not address Apple's alternative argument that Sakamoto discloses at least four threshold values—two battery level thresholds and two GPS signal level thresholds." *Id*. In turn, this Court stated "[w]e leave it for the Board on remand to determine whether multitude encompasses three or four threshold values and whether the two sets of threshold values disclosed in Sakamoto teach a multitude of threshold values." *Id*.

C. The Board Construes "Threshold Values" As Limited To Battery Levels

On remand, the Board accepted this Court's invitation to determine whether two different sets of threshold values might disclose the recited "multitude of threshold values" and requested briefing on the underlying claim construction question of "whether the recited 'threshold values' are limited to battery power level threshold values or whether they may also include signal level threshold values." Appx679-680.

LBT's opening brief on remand focused on the plain language of claim 8 and the specification's disclosure of the claimed embodiment of the Multitude of battery power level adjustments corresponding to FIG. 4. Appx686-688. LBT also noted the prosecution history's support for the conclusion that "the 'multitude of threshold values' can only be battery power level threshold values." Appx687.

In contrast, Apple's opening brief on remand completely ignored the language of claim 8 and corresponding disclosure. Instead, Apple analyzed two portions of the specification, 1) the GPS signal strength trigger method and 2) a low signal level or threshold value as examples of a first signal level, that are unrelated to each other and to the claimed embodiment. Apple further attempted to show equivalence and inclusion simply because the same words were used in multiple places. Apple began by discussing "a first signal level, e.g., a low signal level or threshold value." Appx694-695 (citing Appx51 (7:55-8:3, 8:7-16, 8:67-9:3)). Next, Apple analyzed the GPS signal strength trigger method corresponding to FIG. 3 in which "a power level of the receive communication signal" is compared with "first signal level." Appx696-697 (citing Appx43 (Figure 3); Appx52 (10:38-67)). Throughout, Apple suggested that "multitude of threshold values" must include GPS signal levels simply because the phrase "first signal level" occurs in both embodiments and "threshold value" is one example of "first signal level." Appx694-700.

Significantly, in reference to disclosure corresponding to FIG. 4, Apple admitted:

> Here, the patentee is equating the battery power levels with the multitude of threshold values—a point that is not in dispute between the parties.

Appx699-700. This admission should completely resolve the disputed issue on appeal.

LBT's reply brief on remand reiterated a focus on the plain language of the claims while noting that Apple chose to ignore that plain language and instead conflated multiple embodiments from the specification. Appx715-716; Appx719. Apple's reply brief on remand doubled down on their convoluted and tortured analysis of disclosures unrelated to the claimed embodiment. Appx705-710.

The Board issued its Final Written Decision on Remand on December 15, 2023. Appx1-35. The Board properly determined that "the 'power level' in 'the power level comprising a multitude of threshold values' refers to battery power threshold values." Appx21. The Board also determined that "the words of claim 8, the specification of the '774 Patent, and the prosecution history all distinguish 'signal levels' from battery power levels, which evidences that signal level threshold values are not within the scope of 'the power level comprising a multitude of threshold values.'" *Id*.

Regarding this Court's invitation regarding the construction of "multitude", the Board determined "[a]lthough the court left open the question of whether a 'multitude' encompasses three or four threshold values, we do not need to answer this question to dispose of the remaining claims and grounds." Appx12 (citing *e.g.*, *Realtime Data, LLC*, 912 F.3d at 1375 (Fed. Cir. 2019)).

The Board also observed:

> **We further note that where, as here, "the patent describes multiple embodiments, every claim does not need to cover every embodiment."** *Pacing Techs., LLC v. Garmin Int'l, Inc.*, 778 F.3d 1021, 1026 (Fed. Cir. 2015); *see also AllVoice Computing PLC v. Nuance Commc'ns, Inc.*, 504 F.3d 1236, 1248 (Fed. Cir. 2007) ("[E]very claim need not contain every feature taught in the specification."). Thus, even if claim 8 did not recite a limitation directed to a signal level threshold, the lack of such a limitation would not support Petitioner's proposed construction.

Appx19 (fn10).

Under the proper construction, the Board determined "Petitioner has only established that Sakamoto teaches two battery power level thresholds within the scope of 'the power level comprising a multitude of threshold values'" and "that Petitioner has not established that Sakamoto teaches 'the power level comprising a multitude of threshold values,' as recited in claim 8." Appx32. In turn, the Board found that Apple did not meet their burden to show claims 8, 10, 13, and 15 as obvious over Sakamoto. *Id.*

SUMMARY OF THE ARGUMENT

The Board correctly determined the proper scope of "the power level comprising a multitude of threshold values" as corresponding only to battery power levels. In turn, the Board properly determined that Sakamoto does not disclose "the power level comprising a multitude of threshold values" as recited in claim 8.

I. The Board correctly determined the proper scope of "the power level comprising a multitude of threshold values." The plain language of claim 8 limits "the power level" to "a power level" adjusted and/or measured by "the battery power level monitor." The specification also explicitly defines "the power level" as corresponding to battery power level adjustments. In turn, both the plain language of claim 8 and the specification limit the recited "multitude of threshold values" to values only corresponding with battery power level adjustments.

Claim 8 separately recites "estimated charge level of the charging unit". In doing so, the claim language makes clear "estimated charge level" is a distinct reference from "power level" as recited in the claims. As such, excluding "estimated charge level" from the scope of "multitude of threshold values" based on the same reasoning for excluding "signal levels" does not create any inconsistency in the claim language.

II. The Board's claim scope properly identifies the embodiment corresponding to "the power level comprising a multitude of threshold values." However, Apple would rather ignore the clear evidence that claim 8 properly recites a single embodiment. While both embodiments may employ a user-adjustable value, the GPS signal strength trigger method explicitly defines that user-adjustable value as a signal level (Appx51 (7:55-59)) and only the multitude of battery power level adjustments improvement explicitly defines that user-

adjustable value as "trade-off relationships between remaining battery charge level 414 and update rate 446 (e.g., refresh rate) of location coordinate packets 422" (Appx53 (11:55-57)) which is further explicitly defined as "power level (e.g., battery power level 406) adjustments include multitude of threshold values." Appx54 (13:60-62). Thus, the actual meaningful difference between the two embodiments is that one references a signal level (*e.g.*, FIG. 3) while the other references values that correspond to adjustments to "the power level" (*e.g.*, FIG. 4).

III. The prosecution history supports the Board's construction. Again, Apple would rather ignore the plain language of claim 8 as well as originally filed claim 17. As originally filed, the claims explicitly limited "multitude of threshold values" to "power level" as measured and/or adjusted by "the battery power level monitor" with the use of the definite article "the" in the limitation "the power level comprising a multitude of threshold values." As such, the claim language explicitly limits the scope of "multitude of threshold values."

STANDARD OF REVIEW

This court reviews the Board's legal conclusions *de novo* and its factual findings for substantial evidence. *ACCO Brands Corp. v. Fellowes, Inc.*, 813 F.3d 1361, 1365 (Fed. Cir. 2016). Substantial evidence "means such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." *In re*

Gartside, 203 F.3d 1305, 1312 (Fed. Cir. 2000) (quoting *Consol. Edison Co. of N.Y., Inc. v. NLRB*, 305 U.S. 197, 229-30 (1938)).

ARGUMENT

The Board correctly construed "a multitude of threshold values" to exclude values associated with GPS signal levels. The Board's construction is fully supported by the plain language of the claims and identifies the recitation of a single claimed embodiment without improperly excluding unrelated and unclaimed embodiments. The prosecution history also lends support to the proper construction by confirming the limited claim scope. As such, this Court should affirm the Board's claim construction and determination that Sakamoto does not render the claims unpatentable.

I. The Board Correctly Determined The Proper Scope Of "The Power Level Comprising A Multitude Of Threshold Values"

A. The Plain Language Limits "The Power Level Comprising A Multitude of Threshold Values" to "A Power Level" Adjusted by "The Battery Power Level Monitor"

Contrary to Apple's allegations, the plain language of claim 8 restricts the term "multitude of threshold values" to values corresponding to battery power level adjustments at the exclusion of values associated with GPS signal levels. *Apple Inc. v. Corephotonics, Ltd.*, 81 F.4th 1353, 1358 (Fed. Cir. 2023) ("We begin, as we often do, with the claim language"). As admitted by Apple, claim 8 recites a "battery power level monitor" that "measures a power level of the charging unit

and adjusts a power level applied to location tracking circuitry." Appx55 (16:53-61). Apple further admitted that "[t]he claim then recites that **the adjusted 'power level' includes 'threshold values**…'" Apple's Br. at 25 (citing Appx55 (16:53-61)). As such, Apple agrees that the plain language of claim 8 explicitly links "a multitude of threshold values" to "a power level" as adjusted by "the battery power level monitor."

The specification explicitly supports this link between "multitude of threshold values" and "power level adjustments" by "the battery power level monitor." Appx54 (13:52-67). At the same time, the specification does not disclose that "the battery power level monitor" might adjust the "power level of [a] receive[d] communication signal" or GPS signal level and Apple does not suggest otherwise. Despite this glaring omission, Apple cherry-picks the words "power level" and "threshold value" in an attempt to argue that "multitude of threshold values" must be read to include a GPS signal level simply because the specification, in unrelated embodiments, discloses that a GPS signal level "can be a threshold value used as a basis to activate or deactivate the location tracking circuitry." Apple's Br. at 25-26 (citing Appx52 (10:38-67); Appx51 (7:55-62)).

Apple also cherry-picks the words "battery power level" and mischaracterizes the claims as somehow reciting "a 'battery power level' distinct from a 'power level.'" Apple's Br. at 26 (citing Appx55 (16:53-61)). In contrast,

claim 8 actually recites a specific device, "the battery power level monitor", that performs specific functions related to "a power level of the charging unit" and "a power level applied to location tracking circuitry.". Apple's improperly raised new argument is irrelevant as unrelated to the actual claim language. In addition, neither case cited by Apple is relevant as both involve a broader term recited in a claim and a narrower term defined in the specification. *Id*. 26-27 (citing *Promptu Sys. Corp. v. Comcast Corp.*, 92 F.4th 1372, 1382 (Fed. Cir. 2024); *Cordis Corp. v. Medtronic Ave, Inc.*, 511 F.3d 1157, 1173-74 (Fed. Cir. 2008)). Unlike these cases, the specification here explicitly discloses "power level (e.g., battery power level 406) adjustments include multitude of threshold values" (Appx54 (13:60-62)) and the claim similarly recites "the power level comprising a multitude of threshold values." Appx55 (16:56-57). That is, the same specific term ("power level") is used in both the claims and the specification.

Apple also cites various similarly irrelevant cases discussing whether "comprising" within the body of a claim might be limiting and whether a generic term might exclude a specific variation without further limits imposed within the claim. *See* Apple's Br. at 28-29. This irrelevant argument is based on the false assertions that "there is nothing in the claims requiring that these 'threshold values' correspond only to *battery* power levels" and "nothing in the claim language

precludes 'threshold values' from including values corresponding to the 'power level' of a GPS 'signal level.'" *Id.*

When viewed in context, claim 8 recites "the power level comprising a multitude of threshold values" with the definite article "the" tying "power level comprising a multitude of threshold values" back to "a power level applied to location tracking circuitry" as adjusted by "the battery power level monitor." *See Wi-Lan, Inc.*, 811 F.3d at 462 ("Subsequent use of the definite articles 'the' or 'said' in a claim refers back to the same term recited earlier in the claim"). At the same time, neither the specification nor the claims suggest that "the battery power level monitor" might adjust a GPS signal level, particularly given that a GPS signal is received by the tracking device. As such, the plain language of the claim requires "a multitude of threshold values" to correspond only to "battery power levels" which are adjusted by "the battery power level monitor" and precludes the inclusion of GPS signal levels.

That the specification discloses both a signal power level and a battery power level does not alter the plain language of the claim that explicitly limits "the power level comprising a multitude of threshold values" to "a power level" adjusted by "the battery power level monitor."

B. The Board Properly Distinguished "The Power Level Comprising A Multitude of Threshold Values" From "One or More Signal Levels"

Apple again cherry-picks individual words, "charge levels" in this instance, and attempts to argue that "charge levels" are necessarily included in the correct construction of "threshold values" but somehow improperly excluded as a separately recited claim term. *See* Apple's Br. at 29-31. However, Apple again ignores the plain language of the claims and misdirects focus to the specification in order to raise an irrelevant new argument.

Claim 8 recites "an estimated charge level of the charging unit" and "the estimated charge level of the charging unit." Appx55 (16:51-52, 60-61). However, claim 8 does not separately recite "charge level" or "charge levels." As discussed, "the power level comprising a multitude of threshold values" corresponds to adjustments made by "the battery power level monitor" to "a power level applied to location tracking circuitry." Appx55 (16:53-57); *see also* Appx54 (13:60-62) ("power level (e.g., battery power level 406) adjustments include multitude of threshold values"). Regardless of whether "battery power level 406", "battery charge level 406", and "battery level 406" are used interchangeably in the specification, "estimated charge level" as recited in claim 8 is not encompassed within the Board's construction of "a multitude of threshold values" which correspond to battery power level adjustments. As such, "estimated charge level"

may properly be excluded from "a multitude of threshold values" as a separately recited term.

Apple complains that "the question is whether the recited 'threshold values' can include values corresponding to GPS signal levels." Apple's Br. at 30. And yet, Apple ignores the Board's clear answer to this question: "that the 'power level' associated with the 'multitude of threshold values' is the battery power level that is (1) measured by the battery power level monitor and (2) adjusted by the battery power level monitor and applied to location tracking circuitry." Appx16. In turn, the Board correctly determined "[g]iven '[t]he general presumption that different terms have different meanings,' *Chicago Bd. Options Exch., Inc. v. Int'l Sec. Exch., LLC*, 677 F.3d 1361, 1369 (Fed. Cir. 2012), we ascribe different meanings to the recited 'signal levels' and 'power level.'" *Id*. Thus, the Board's answer to Apple's question is that "multitude of threshold values" can not correspond to GPS signal levels because "the power level" and "signal levels" have different meanings.

C. The Board Properly Identified The Distinct Purpose Corresponding To "A Multitude of Threshold Values"

Apple acknowledges:

> The purpose of the "multitude of threshold values," which is "to intermittently activate or deactivate the location tracking circuitry to conserve power of the charging unit in response to the estimated charge level of the charging unit."

Apple's Br. at 31 (citing Appx16 (quoting Appx55 (claim 8))). However, Apple conveniently ignores the clear and repeated omission of "intermittently" from any disclosure related to GPS "signal level" values.

The specification provides multiple examples indicating that "to intermittently activate or deactivate location tracking circuitry" refers to repeatedly turning location tracking circuitry on and off according to a schedule. *See* Appx54 (14:1-57). In contrast, the only other reference to "threshold value" states "the accelerometer 130 activates upon one or more antenna(s) … detecting a first signal level, e.g., a low signal level or threshold value." Appx51 (7:55-58). And the disclosure corresponding to FIG. 3 states "accelerometer 130 activates if a power level of the receive communication signal is insufficient for processing" and "upon determining receive communication signal of sufficient strength, location tracking circuitry 114 are activated." Appx52 (10:47-49, 58-60).

In view of the specification, the purpose of "a multitude of threshold values" is to operate "location tracking circuitry" according to a schedule. In contrast, the purpose of "first signal level" is to alternatively activate an accelerometer or activate location tracking circuitry. Thus, the purpose of each disclosure of "threshold value" is fundamentally different and Apple's newly raised argument is irrelevant.

II. The Board's Claim Scope Properly Identifies The Embodiment Corresponding To "The Power Level Comprising A Multitude Of Threshold Values"

Yet again, Apple ignores the plain language of the claim and cites an irrelevant case as supporting its flawed analysis. This Court's "caselaw counsels against interpreting the claims in a way that would omit a disclosed embodiment **absent clear evidence to the contrary**." *Apple*, 81 F.4th at 1359 (citing *Sequoia Tech, LLC v. Dell, Inc.*, 66 F. 4th 1317, 1327 (Fed. Cir. 2023)) (emphasis added). In *Apple*, however, the issue was the use of the indefinite article "a" to introduce a broad recitation of an element in the claim while the specification disclosed multiple specific types of the recited element. *See id*.

In contrast, claim 8 uses almost identical language, including the definite article "the", as the language used in the specification corresponding to FIG. 4. *Compare* Appx55 (16:53-61) *with* Appx54 (13:52-67). Such use of consistent language in both the claim and the specification provides clear evidence of the intent to claim a single embodiment at the exclusion of other unrelated disclosed embodiments.

A. The Board Properly Accepted One "Threshold Value" Embodiment Within The Scope of The Claims

The plain language of the claim, in view of the specification, provides clear evidence of the intent to claim a single embodiment (*i.e.*, FIG. 4) at the exclusion of other embodiments (*e.g.*, FIG. 3). The specification discloses:

> In yet another advantage, the present invention **power charging monitor (e.g., battery level monitor 116) measures a power level (e.g., battery power level 406) of power charging unit (e.g., battery 118) and adjusts a power level (e.g., battery power level 406)** applied to, for example, location tracking circuitry (e.g., location tracking circuitry 114) or transceiver 102 responsive to one or more signal levels. In contrast to previous manufacturer tracking device power level settings, the present invention has the capability of **power level (e.g., battery power level 406) adjustments include multitude of threshold values** (see active display 432 of FIG. 4) that is determined by user or system administrator to intermittently activate or deactivate location tracking circuitry (e.g., location tracking circuitry 114) to conserve power of the power charging unit (e.g., battery 118) responsive to estimated charge level (e.g., battery charge level 406).

Appx54 (13:52-67). The specification also discloses:

> In one variant, local battery adjustment mechanism 416 includes user adjustable screen icon 432 to graphically display in substantially real-time trade-off relationships between remaining battery charge level 414 and update rate 446 (e.g., refresh rate) of location coordinate packets 422. Advantageously as compared to conventional tracking devices, user input request 430 adjusts value 419 to select an appropriate update set of network communication signaling protocols to achieve a desired user defined battery operating environment, e.g., **obtain optimal battery life, obtain optimal update rate, tradeoffs between them**.

Appx53 (53-63).

> Using almost identical language, claim 8, in part, recites:
>
> wherein the battery power level monitor measures a power level of the charging unit and adjusts a power level applied to location tracking circuitry responsive to one or more signal levels,
>
> the power level comprising a multitude of threshold values determined by a user or system administrator to intermittently activate or deactivate the location tracking circuitry to conserve power of the charging unit in response to the estimate charge level of the charging unit.

Appx55 (16:53-61).

Despite this clear evidence to the contrary, Apple mischaracterizes the unrelated GPS signal strength trigger method embodiment corresponding to FIG. 3 as functioning in the same manner as the embodiment claimed in claim 8. Apple's Br. at 34. Contrary to Apple's mischaracterization, the specification explicitly discloses "a first signal level" as a simple trigger to either activate (*i.e.*, turn on) or deactivate (*i.e.*, turn off) an accelerometer and/or location tracking circuitry. *See* Appx51 (7:55-62); *see also* Appx51 (8:4-10); Appx52 (10:47-49, 54-65); Appx43 (Figure 3). A single threshold value used to alternate between two components is a fundamentally different function from a multitude of threshold values corresponding to power level adjustments used to schedule when a single component is repeatedly turned on and off.

Since the GPS signal level of FIG. 3 functions in a fundamentally different manner, the Board correctly omitted the embodiment of FIG. 3 from the proper construction of "the power level comprising a multitude of threshold values."

B. The Specification Explicitly Discloses Two Distinct And Disparate Types of "Threshold Values"

Apple observes that both "a first signal level" and "a multitude of threshold values" might be determined by a user or system administrator. Apple's Br. at 40 (citing Appx51 (7:50-83), Appx55 (claim 8)). Apple also observes that a GPS signal level may be a "signal power level" or "power level of [a] receive

communication signal." *Id*. (citing Appx51 (7:22-25); Appx52 (10:46-47)). However, such observations do not change the plain language of claim 8 and do not address the fundamentally different uses of two distinct and disparate types of "threshold values."

Similarly, that both uses might result in conserved battery usage is irrelevant to the claimed embodiment's intent "to select an appropriate update set of network communication signaling protocols to achieve a desired user defined battery operating environment, e.g., obtain optimal battery life, obtain optimal update rate, tradeoffs between them." Appx53 (11:59-63). The "crux of the invention" is that a user may select from "a multitude of threshold values" corresponding to battery power level adjustments "to achieve a desired user defined battery operating environment" in full support of the Board's proper construction. *See Seabed Geosolutions (US) Inc. v. Magseis FF LLC*, 8 F.4th 1285, 1288 (Fed. Cir. 2021).

Again, the plain language of the claims and the specification both provide a "clear and unmistakable disavowal" of any alternative construction. *Pacing Technologies, LLC*, 778 F.3d at 1026 (Fed. Cir. 2015)). And in contrast to *Evolusion Concepts, Inc. v. HOC Events, Inc.*, both the specification and the plain language of the claims provide a clear limit to the scope of "the power level comprising a multitude of threshold values." *Cf*. 22 F.4th at 1367 (Fed. Cir. 2022).

The specification explicitly discloses "a first signal level, e.g., a low signal level or threshold value." Appx51 (7:57-58). The specification also distinctly discloses "power level (e.g., battery power level 406) adjustments include multitude of threshold values." Appx54 (13:60-62). Claim 8's use of identical language clearly limits "the power level comprising a multitude of threshold values" to the latter embodiment at the exclusion of the former embodiment. As such, the Board's construction properly omits one of two "threshold value" embodiments.

III. The Prosecution History Supports The Board's Construction

The Board stated "that the delineation between prosecution claims 16 and 17 provides some support that the 'multitude of threshold values' in issued claim 8 relates to battery power levels and not signal levels." Appx21. However, the Board's agreement that the prosecution history "provides some support" is only an acknowledgement of that support. Such acknowledgement is not error.

Apple notes "only a 'clear and unmistakable' disclaimer or surrender of claim scope can overcome a contrary construction dictated by the claim language or specification." Apple's Br. at 42 (citing *Comcast IP Holdings I LLC v. Sprint Commc'ns Co., L.P.*, 850 F.3d 1302, 1313 (Fed. Cir. 2017) (quoting *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1325-26 (Fed. Cir. 2003))). However, nowhere does Apple point to any disclaimer that "the power level comprising a

multitude of threshold values" should not be limited to "a power level applied to location tracking circuitry" as adjusted by "the battery power level monitor" as recited in claim 8. As noted by the Board, Apple "does not address the prosecution history." Appx21.

Apple does not suggest that prosecution claim 17 is not a recitation of the embodiment corresponding to FIG. 4. Instead, Apple asserts "[n]othing in the language of either prosecution claim prohibits 'threshold values' from encompassing GPS signal levels." Apple's Br. at 44. Yet Apple fails to provide any potential disclaimer that "the power level comprising a multitude of threshold values" does not refer to previously recited "a power level" that is adjusted by "the battery power level monitor." Apple also fails to provide any potential disclaimer that use of the definite article "the" as part of "the power level" does not prohibit "a multitude of threshold values" from encompassing GPS signal levels.

The plain language of the claims limits "the power level comprising a multitude of threshold values" as corresponding to battery power level adjustments. The prosecution history confirms this proper limitation and provides support for the Board's correct construction.

CONCLUSION

For the foregoing reasons, the Board's decision on remand in IPR2020-01189 should be affirmed.

Date: August 12, 2024

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CERTIFICATE OF SERVICE

I hereby certify that on August 12, 2024, I served a copy of the foregoing brief on all counsel of record via this Court's CM/ECF system.

Date: August 12, 2024

/s/ Shaun D. Gregory
Shaun D. Gregory

CERTIFICATE OF COMPLIANCE

The forgoing brief complies with the relevant type-volume limitation of the Federal Rules of Appellate Procedure and Federal Circuit Rules because: The brief has been prepared using a proportionally spaced typeface and includes 6,761 words, excluding the parts of the brief exempted by Fed. R. App. P. 32(f) and Fed. Cir. R. 32(b).

Date: August 12, 2024

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